

Shapes Around The Neighborhood

Performance Task

Introduction

When you look around at the buildings in your neighborhood, you will probably see many different shapes. For example, what is the shape of a window or a door? Shapes have different lines and parts that are called characteristics. In this task, you will be inspecting all the different shapes that can be found in your neighborhood.

Big Idea / Essential Questions

Big Idea

- Buildings in a community are made up of many shapes.
- Shapes are all around us.
- Find the differences between two-dimensional and three-dimensional shapes. A two-dimensional shape means a flat shape that you can draw. A three-dimensional shape means you can hold it or touch it.

Essential Questions

- How can we group the shapes around us in our neighborhood?
- When exploring different shapes (e.g., circle, square, triangle, or two-dimensional or three-dimensional), how do their different parts or characteristics help us put them into groups?

G.R.A.S.P.

Goal

Your goal is to explore and investigate all the different shapes that can be found in the neighborhood around you.

Role

You are an engineer working as a building inspector. You are very interested in finding out more about the shapes that are used in your neighborhood.

Audience

Your audience will be local builders in the community. Their job is to build more buildings in the area and they want to know more about how to use interesting shapes in their architecture.

Situation

The buildings in every neighborhood are built using different shapes. These shapes have different lines and parts that are called characteristics. The characteristics or attributes that a shape has help to name the shape. As the building inspector, you are to find the different kinds of shapes in the buildings around you and put the shapes into groups by category. You can use their characteristics to help you categorize the shapes by their similarities and differences (e.g. triangles, quadrilaterals, two-dimensional or three-dimensional shapes).

Products

1. Illustration

suggested starting product:

Draw a picture of all the shapes you know and include the name of each shapes.

- What is your favorite shape?
- How many shapes can you draw?
- How many shapes do you see around you?

Illustration - Shapes Around The Neighborhood

Achievement Levels	1	2	3
Illustration (x1)	Illustration is unclear and is not connected to the concept.	Illustration is somewhat clear and demonstrates minimal connection to the concept.	Illustration is clear and demonstrates some connection to the concept.

2. Scavenger Hunt

Take a walk around the classroom, school, or neighborhood and use a checklist to record all of the different shapes that you can find. These shapes may be two dimensional or three dimensional. You may also want to explore how many sides or vertices that each shape has. This could be done as an individual, with a partner, or as a group project with the help of a teacher or class helper. Make sure to keep track of your findings.

- What types of shapes can you name?
- What different shapes do you see near you?
- How many sides does your favorite shape have?
- Are shapes flat or solid?

Scavenger Hunt - Shapes Around The Neighborhood

Achievement Levels	1	2	3
Shapes (x1)	Student needs support in identifying and naming common shapes.	Student shows some proficiency in identifying and naming shapes.	Student shows proficiency in identifying and naming most shapes.
Participation (x1)	Student is not engaged and does not actively participate in class and/or group activity.	Student is somewhat engaged and somewhat participates in class and/or group activity.	Student is very engaged and actively participates in class and/or group activity.
Information and Findings	Student does not show any evidence of	Student makes attempt to record	Student keeps track of information with a label, name or description of

Achievement Levels	1	2	3
	notes or findings.	information.	findings.

3. Poster

Create a poster of a building(s) in the neighborhood (e.g. police station, school, firehouse, restaurant, etc.). Include examples of shapes that would be found on the building. You can use clay, construction paper, or any household/classroom items.

- What shapes do you know?
- What shapes can you find around you?
- What shapes are most commonly found on a building?

Poster - Shapes around the Neighborhood

Achievement Levels	1	2	3
Math (x1)	Student needs support in recognizing and identifying shapes.	Student shows some understanding of shapes by describing some objects in the environment and identifying the names of shapes.	Student shows a proficient understanding of shapes by describing some objects in the environment and identifying the names of shapes.
Participation (x1)	Student is not engaged and does not actively participate in class and/or group activity.	Student is somewhat engaged and somewhat participates in class and/or group activity.	Student is very engaged and actively participates in class and/or group activity.
Creativity (x1)	Student did not show interest in contributing ideas or materials for the poster.	Student contributes some creative ideas or materials for the poster.	Student contributes creative ideas and materials for the poster.

4. Picture Identification

Each student, partner group, or small group of students should be given a picture of a building in the neighborhood. They then identify the different shapes found in the picture (e.g. windows are squares, door is a rectangle, etc.). As each student or group completes a building, they receive a new one and their neighborhood grows.

- What shapes do you know?
- What shapes can you find around you?
- What shapes are most commonly found on a building?

Picture Identification - Shapes Around The Neighborhood

Achievement Levels	1	2	3
Shapes (x1)	Student needs support in identifying various shapes.	Student identifies some different shapes.	Student identifies several different shapes.
Participation (x1)	Student is not engaged and does not actively participate in class and/or group activity.	Student is somewhat engaged and somewhat participates in class and/or group activity.	Student is very engaged and actively participates in class and/or group activity.

5. Journal Prompt

Suggested final product can be written or orally dictated.

Tell me what you learned about shapes and buildings.

- What are the shapes in the room?
- What are the shapes on the building?
- How many shapes can you count in the room?

Journal Prompt - Shapes Around The Neighborhood

Achievement Levels	1	2	3
Content (x1)	Response contains a limited amount of accurate, factual information.	Response contains some accurate, factual information about the topic.	Response contains mostly accurate, factual information about the topic.
Shapes (x1)	Not able to identify or correctly name any shapes.	Identifies and correctly names one or two shapes.	Can identify and correctly name different shapes. May include two or three dimensional shapes.
Conventions (if student response is written) (x1)	Entry does not indicate an attempt at phonetic construction.	Entry includes phonetic construction of words. Does not include capitalization or punctuation.	Entry includes some sight words spelled correctly and phonetic construction of unknown words. May include capitalization or punctuation.
Oral Dictation (if journal response is given orally) (x1)	Student response is not audible and lacks coherent sentences	Student response is partially audible and uses somewhat coherent sentences.	Student response demonstrates audible speaking in mostly coherent sentences.